

# TEXAS REBOUNDS

HELPING OUR COMMUNITIES RECOVER FROM THE 2008 HURRICANE SEASON

November 2008

Governor Rick Perry Judge Robert Eckels Brian Newby



RICK PERRY GOVERNOR

November 10, 2008

The 2008 hurricane season will go down in history as having been particularly unkind to Texas. Even before Hurricane Ike slammed into the coastline as possibly the most destructive storm in Texas history, our state had been hit by two other significant hurricanes and a major tropical storm, all within 52 days.

In the face of the 2008 storms, Texas performed admirably. Building on lessons learned just a few short years ago during Hurricanes Katrina and Rita, our planners, first responders and state and local leaders performed effectively and gallantly. And, as they always do, Texans all over this great state helped their neighbors in need.

Preliminary damage estimates for the 2008 hurricane season total more than \$29.4 billion. Homes, businesses, and infrastructure were damaged and destroyed. And to date, more than 716,000 households have requested assistance and more than \$270.0 million has been distributed to help begin the rebuilding effort.

Texas will rebuild our devastated homes and communities, return our children to their schools, restart our businesses, and recapture the quality of life that the 2008 storms have interrupted; all with an eye towards mitigating the impact of future storms. Federal assistance is the catalyst to our recovery.

While the federal assistance we have already received is appreciated, our rebuilding needs are substantial, and much more help is needed. That is why I have asked former Harris County Judge Robert Eckels, and my former chief of staff, Brian Newby, to lead a Hurricane Recovery and Coordination Effort, and why I have directed them to prepare this outline of Texas' funding needs.

Texas cannot do it alone. I ask for your continued support to ensure Texas has all the necessary resources to help restore areas devastated by the 2008 hurricane season. With your assistance, parts of Texas that currently only see destruction's wake can be given a renewed vision for a promising future.

Sincerely,

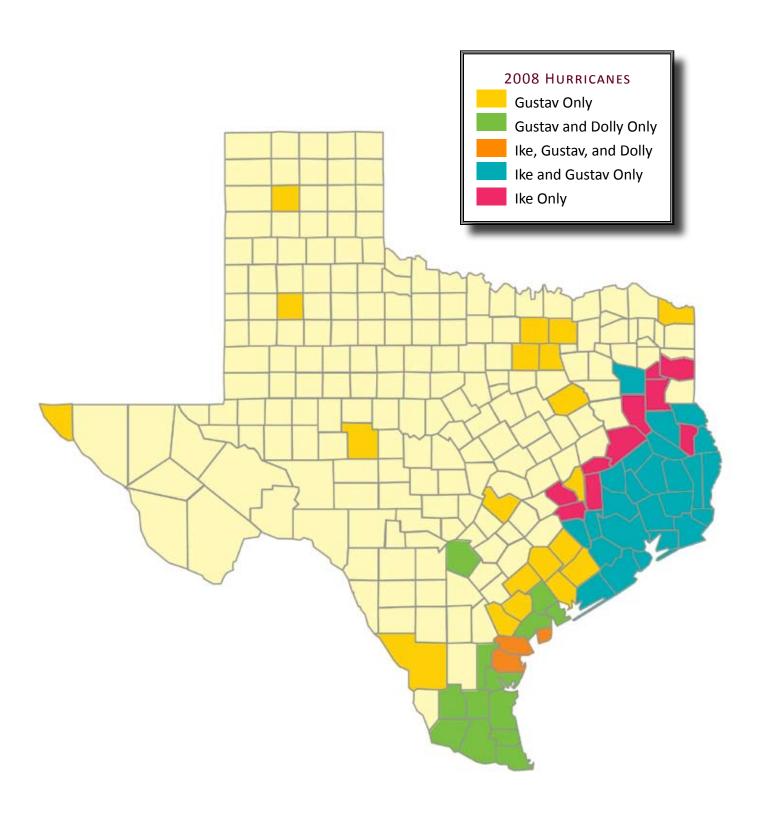
Rick Perry Governor

KICK PERRY

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Figure 1: Texas Counties Impacted by Hurricanes, 2008



Source: Texas Governor's Office

Map Prepared By: HHSC, Strategic Decision Support

#### **SECTION ONE:**

#### TEXAS' 2008 HURRICANE SEASON

Even before Hurricane Ike hit the Texas coastline, Texas had already seen its share of storms and the destruction they left behind.

Hurricane Dolly, the most destructive storm to hit the Rio Grande valley in 41 years, struck the south Texas coastline as a Category 2 hurricane on July 21, 2008. Though damage was significant in the 16 counties declared federal disaster areas, Texas had staged its resources, responded quickly, and the general consensus among Texans was it could have been much worse.

Just two weeks later, on August 2, Tropical Storm Edouard made landfall near the Texas-Louisiana border. While the storm never reached hurricane strength, it disrupted the lives of many Texans along the coast.

A strong Category 2, Hurricane Gustav made landfall in Louisiana on September 1, just before moving into Texas, a month after Tropical Storm Edouard. Although Texas dodged a direct hit, 61 counties were declared federal disaster areas. It could have been a much bigger disaster.

Then came Ike.

Gigantic and powerful, 900 miles wide, and the size of West Virginia, Ike rolled across the Gulf of Mexico. The massive Category 2 hurricane, with winds up to 110 mph at landfall, hit Texas just 12 days after Gustav, on Saturday, September 13, and became the third hurricane to hit or effect Texas in less than two months. A 20-foot storm surge swallowed Galveston Island and other coastal areas just before Ike's arrival and prompted the National Weather Service to later upgrade Ike to a Category 4 hurricane.

Mandatory evacuations resulted in over a million people moving safely inland and helped save lives. The devastation left in Ike's wake is heartbreaking, 84 Texans lost their lives. Homes — many either uninsured or underinsured for storms such as this — erased from existence, businesses destroyed, roads torn from the ground, bridges demolished, miles of neighborhoods reduced to debris piles, a coastline crudely redrawn, and utilities rendered inoperable.

Houston, the fourth largest city in the country, suffered flooding, high winds, fallen trees, destruction of homes and businesses, and a loss of power to 95 percent of its residents. Further to the east, in Jefferson, Hardin, and Orange counties, Entergy Texas experienced the largest percentage loss of power in its history with virtually every customer losing electricity. Due to the storm surge, Bridge City, located in Orange County, was left with fewer than 20 of its 3,400 homes habitable and every business was damaged or destroyed. Within the city of Galveston, businesses struggle to repair damage to the vital tourism industry. Many of those businesses are located in the Historic Strand Area and were not insured for flood because of their elevation; they now face the daunting task of not only rebuilding, but also accessing funds to cover those costs. The restoration of electricity, water, and wastewater services were priorities. Now the restoration of basic government services, such as public safety, fire protection, access to justice, and general government administration, must be undertaken at a cost of over a billion dollars. In the weeks following the storm, thousands of Texas families continue to struggle to find housing close to jobs and schools.

# Did you Know?



Days from Dolly's Impact to Hurricanes Ike.



Texas counties were declared a Federal Disaster Area in 2008.



Ike's rank of the most destructive storms to hit the United States.



The last time the Rio Grande Valley saw a storm at Dolly's level.



Estimated cubic yards of debris in millions from Hurricane Ike.



Million Texans evacuated for Hurricane Ike.



Ike's width in miles, the same size as West Virginia.



Cost benefit ratio for hurricane mitigation in dollars.

After Ike, 38 Texas counties were declared presidential disaster areas. Housing continues to be in short supply, and some counties, in the heart of the affected zone, have lost their property and sales tax bases. These communities have significant unmet recovery needs and the primary beneficiaries of assistance are those having low or moderate incomes.

The unreimbursed damages from the 2008 hurricane season are currently estimated at \$29.4 billion. This includes \$ 1.6 billion for mitigation costs and \$ 14.8 billion for the local communities' economic losses.

Evidencing the magnitude of the destruction of Ike alone, Governor Rick Perry has requested the Federal Emergency Management Agency (FEMA) extend its agreement to pay 100 percent of emergency protective measures and debris removal for 18 months. He also asked federal officials to adjust the federal cost share to 100 percent for all categories of public assistance, and expand direct federal assistance and hazard mitigation for all counties included in the governor's original emergency declaration.

In his letter to President Bush, Governor Perry noted that Hurricane Ike may be the costliest disaster in the history of Texas. To date, more than 716,000 households have registered for individual assistance and more than \$270.0 million has been distributed to individuals.

Obviously, this only scratches the surface of what must be done.

The State of Texas is working with local governments, regional planning councils, public school districts, chambers of commerce, and social service agencies to document the full scope of unmet needs from the 2008 hurricane season. Texas communities are now implementing strategies to meet urgent community development needs for which financial resources are limited.

The funding request outlined in this document describes the needs for federal funds that would provide Texas and its citizens the critical assistance needed to bring them back to full health.

#### **SECTION TWO:**

#### QUALIFICATION TO COST ESTIMATES

Due to the timing of this report, the data<sup>1</sup> included is preliminary and likely to underestimate the real need in the areas most damaged by the 2008 hurricane season.

Hurricane Ike came ashore in Galveston less than two months ago and restoration efforts in most places have only just begun. Several of the hardest hit areas, including portions of Jefferson and Galveston County, remain in recovery mode. Some areas still lack water, gas, wastewater services, and electricity, and several schools have not reopened or have reopened in a temporary location. In these areas, the primary focus remains on removing debris and providing critical services. A number of individuals still remain unaccounted for.

It should also be noted that several estimates will depend on decisions made by the federal government as to whether, and to what degree, reimbursement is awarded. For example, if FEMA extends the period for debris removal, some cost estimates will decline. Similarly, if the United States Army Corps of Engineers (Corps of Engineers) is able to fund dredging or underwater debris removal, or if the Federal Highway Administration funds some or all of the transportation repair projects necessitated by the hurricanes, then transportation and navigation needs should decline.

Additionally, costs to mitigate future infrastructure damages are included in these estimates. Therefore, some of the numbers included represent the best educated guess. The state of Texas has reviewed and substantiated these numbers to the best of its ability, within the limited time frame and with the data substantial texas and the substantial texas are included in these estimates. Therefore, some of the numbers included represent the best educated guess. The state of Texas has reviewed and substantial texas are included in these estimates. Therefore, some of the numbers included represent the best educated guess. The state of Texas has reviewed and substantial texas are included in these estimates.



<sup>1</sup> Data supplied by cities, counties, Councils of Government, and state agencies.



# **SECTION THREE:**

# **EXECUTIVE SUMMARY - TEXAS 2008 HURRICANE SEASON FUNDING REQUEST**

The 2008 Texas hurricane funding request for federal assistance totals \$29.4 billion to meet the needs presented by Hurricanes Ike, Gustav, and Dolly. The figures in this plan are preliminary estimates only, as it is only six weeks since Hurricane Ike made landfall on the Texas coast. This funding request prioritizes the major needs of Texas.

The following are estimates only:

| HOUSING ASSISTANCE  | \$   | 3.4 billion      |
|---|------|------------------|
| Funds totaling \$3.4 billion are needed for uninsured housing costs to residents for repair, reconstruction, elevation, and relocation.   |      |                  |
| ★ Housing Repairs, Reconstruction, and Mitigation   | \$   | 3,448.8 million  |
| CRITICAL INFRASTRUCTURE   | \$   | 1.9 billion      |
| Funds totaling \$1.9 billion are needed to assist state agencies and local governments for unreimbursed hurricane damages relating to utilities, public buildings, and equipment. |      |                  |
| Local Government Critical Infrastructure Repairs  | \$   | 1,714.5 million  |
| ★ State Government Critical Infrastructure Repairs  |      | 149.2 million    |
| ECONOMIC DEVELOPMENT  | \$   | 545.0 million    |
| Funds totaling \$545.0 million are needed for community revitalization, historic repair, and bridge loans and grants.   |      |                  |
| ★ Community Revitalization Program  | \$   | 500.0 million    |
| ★ Grants for Historic Structure Repair  |      | 25.0 million     |
| ★ Funds for Bridge Loans and/or Grants  |      | 20.0 million     |
| ECONOMIC DEVELOPMENT - GULF OPPORTUNITY ZONE  | \$   | 14.3 billion     |
| Funds totaling \$14.3 billion are needed to address the long-term economic impact for areas damaged during the 2008 hurricane season.   |      |                  |
| ★ Long-Term Economic Impact   | \$ 2 | 14,300.0 million |
| FORESTRY, AGRICULTURE, AND FISHERIES  | \$   | 1.1 billion      |
| Funds totaling \$1.1 billion are needed to offset forestry, agricultural, and fishery losses.   |      |                  |
| ★ Forestry Impact   | \$   | 500.0 million    |
| Land and Livestock Impact   |      | 165.0 million    |
| ★ Crop Damage   |      | 139.6 million    |
| ★ Structure and Equipment Damage  |      | 130.0 million    |
| ★ Pest Damage   |      | 60.0 million     |
| ★ Debris Removal  |      | 50.0 million     |
| ★ Fishery Damage  |      | 8.0 million      |

| Social Services  | \$       | 1.4 billion     |
|--|----------|-----------------|
| Funds totaling \$1.4 billion are needed for structural damage, direct-client services, emergency assistance, and other social services.  |          |                 |
| ★ Unreimbursed Structural Damage to Social Service Agencies  | \$       | 839.4 million   |
| ★ Increased Client Services  |          | 415.1 million   |
| ★ Reimburse State Costs  |          | 104.3 million   |
| TRANSPORTATION   | \$       | 536.5 million   |
| Funds totaling \$536.5 million are needed for local, county, and state transportation repairs and mitigation.  |          |                 |
| ★ Local and County Government Transportation Repairs and Mitigation  | \$       | 482.8 million   |
| ★ State Transportation Repairs   |          | 53.7 million    |
| Workforce Services   | \$       | 570.0 million   |
| Funds totaling \$570.0 million are needed to address workforce housing, workforce development training, and disaster-related unemployment costs.   |          |                 |
| ★ Workforce Housing Program  | \$       | 500.0 million   |
| ★ Workforce Development Training Program   |          | 40.0 million    |
| ★ Disaster-Related Unemployment Costs  |          | 30.0 million    |
| EDUCATIONAL SERVICES   | \$       | 712.7 million   |
| Funds totaling \$712.7 million are needed for the unreimbursed repair costs to public and private colleges and universities and public schools damaged during the 2008 hurricane season.   |          |                 |
| ★ Unreimbursed Damages to Public and Private Colleges and Universities   | \$       | 640.1 million   |
| ★ Unreimbursed Damage to Public Schools  | Y        | 72.6 million    |
| NAVIGATION AND WATERWAYS   | \$       | 3.2 billion     |
| Funds totaling \$3.2 billion are needed for waterway and infrastructure repairs, mitigation projects, coastal restoration, and underwater debris removal projects.   | <u> </u> | <u> </u>        |
| ★ Waterway and Infrastructure Repairs and Mitigation Projects  | \$       | 2,140.4 million |
| ★ Coastal Restoration and Underwater Debris Removal Projects   |          | 1,092.7 million |
| HEALTH CARE AND MENTAL HEALTH SERVICES  Funds totaling \$209.4 million are needed to provide uncompensated health care and mental health services, and to repair or replace unreimbursed damage to facilities and loss of equipment. |          | 209.4 million   |
| ★ Uncompensated Health Care  | \$       | 127.0 million   |
| ★ Unreimbursed Damage to Facilities and Loss of Equipment and Supplies   | \$       | 71.9 million    |
| ★ Uncompensated Mental Health Services   | \$       | 5.4 million     |
| ★ Provide Health Access Network Services   | \$       | 5.0 million     |
| 7. 1. 10 TIGG TEGRICITY COCCUS TYCCAYOTH OCT VICES   | 7        | 5.0 111111011   |

UTILITY INFRASTRUCTURE \$ 1.6 billion

Funds totaling \$1.6 billion are needed for cost of repairs to electric and telecommunication utilities.

★ Electric Utility Critical Infrastructure Repairs

★ Telecommunications Utility Infrastructure Repairs

\$ 1,435.0 million 173.8 million

TOTAL UNREIMBURSED 2008 HURRICANE COST

\$ 29.4 BILLION



Funds totaling \$3.4 billion are needed for uninsured housing costs to residents for repair, reconstruction, elevation, and relocation.

#### **JUSTIFICATION**

In the early morning hours of September 13, 2008, Hurricane Ike slammed into the upper Texas coast, bringing with it a level of destruction not seen since the 1900 storm. Hundreds of thousands of residents fled the worst storm surge to hit the state in the last century. Thousands of homes in southeast Texas were severely damaged or destroyed as a surge up to 20-foot hit in conjunction with the high tide. Entire cities were inundated with the muck, mud, and debris that accompanied the surge. In the tiny town of Bridge City, fewer than 20 of its 3,400 homes are habitable. In Gilchrist, located on the Bolivar Peninsula, only one home was left standing when the winds stopped. Less than two months after the storm, thousands of families continue to struggle with finding places to live near their jobs and their children's schools, in an effort to restore some normalcy to their lives. At least 4,000 utility customers remain without electricity, and some areas remain without water or wastewater services.

FEMA reports that as of October 31, 2008, more than 228,000 households of the 716,000 applications have verified housing losses. FEMA provides a maximum of \$28,800 for uninsured housing repair or reconstruction. An average reimbursement would result in \$2.4 billion for already verified damages. Estimates from cities and counties in the Ike disaster area indicate approximately \$24.0 billion in total damage to housing caused by Hurricane Ike alone. Using the average uninsured percentage for wind coverage provided by the Texas Department of Insurance (TDI) of 14 percent, the unreimbursed damage estimate would be \$3.4 billion. The factor that could drive this number up even higher is that the areas with the most devastation were hit by the storm surge. Based on TDI data, the uninsured average for flood insurance is 69 percent.

These funds will be used for repair, reconstruction, elevation, or relocation within the following categories: single-family homeowner, small rental (including single-family rental) and multi-family rental. Separate programs and eligibility will be developed for each component dependent on the final identified needs.

Damage estimates by Council of Government jurisdictions include:

Houston - Galveston Area Council \$ 2,700.0 million

Southeast Texas Regional Planning Commission 616.0 million

Deep East Texas Council of Governments 48.6 million

Hurricane Dolly Housing Damage Estimates<sup>2</sup> 50.0 million

Additionally, \$34.2 million will be used in mitigation funds for home buy-outs. For instance, in the Coastal Bend area there are homes that are in the 100-year floodplain and have been impacted by numerous hurricanes.

<sup>2</sup> Based on FEMA data



Funds totaling \$1.9 billion are needed to assist state agencies and local governments for unreimbursed hurricane damages relating to utilities, public buildings, and equipment.

#### **JUSTIFICATION**

Hurricane Ike downed power lines, flooded and tore roofs and windows from public buildings, and damaged and destroyed emergency equipment. Following the storm, nearly 2 million people were without power. Even now, more than a month after the storm, there are areas without power, water, and/or wastewater services, due to severe damage to public infrastructure. In areas like Galveston Island and the Bolivar Peninsula, water and wastewater plants will have to be rebuilt. Similarly, water and wastewater lines will have to be replaced, especially in areas where the storm reconfigured the state's shoreline. Restoration of these basic services and other government services such as public safety, fire protection, access to justice, and general government administration has already cost state and local governments hundreds of millions of dollars, but is only the tip of the iceberg. At this time, our incomplete estimates indicate that critical infrastructure restoration costs will in all likelihood exceed \$1.9 billion.

#### LOCAL GOVERNMENT CRITICAL INFRASTRUCTURE REPAIRS

\$ 1,714.5 million

Local governments in the path of Hurricanes Ike and Dolly were particularly hit hard. High winds and flooding caused significant damage to public buildings, while the storm surge, heavy rains, and flooding overwhelmed, and in some cases destroyed, water and wastewater plants and lines. Damage to local government facilities<sup>3</sup> and equipment ranges from minor repair to total destruction.

Debris removal constitutes the most urgent request. In some of the hardest hit areas, where basic needs such as electricity and water are still lacking, debris removal must take place before rebuilding can begin. This debris is located on property that cannot be assisted with FEMA or Corps of Engineer funds. The debris is not only an immediate health hazard due to rodent and snake infestation, but also contains items such as vehicles, propane tanks, storage barrels, and animal carcasses, all which require special handling and disposal.



<sup>3</sup> In this case, "facilities" includes public freshwater and wastewater treatment plants, and buildings housing local governments.

Estimates for the most severely damaged local government infrastructures include:

| City of Galveston   | \$<br>550.0 million |
|---------------------|---------------------|
| Harris County       | 402.9 million       |
| Chambers County     | 200.0 million       |
| City of Houston     | 104.5 million       |
| City of Port Arthur | 64.0 million        |
| Galveston County    | 63.2 million        |
| Orange County       | 48.0 million        |
| Tyler County        | 45.0 million        |
| Jefferson County    | 40.0 million        |
| Jasper County       | 31.0 million        |
| City of La Marque   | 27.0 million        |
| Matagorda County    | 25.5 million        |
| City of Beaumont    | 20.5 million        |

#### STATE GOVERNMENT CRITICAL INFRASTRUCTURE REPAIRS

\$ 149.2 million

State facilities<sup>4</sup> suffered widespread damage in the areas hit by Hurricane Ike. In addition, some state facilities suffered damage from Hurricanes Dolly and Gustav. This damage ranged from destruction of the Galveston juvenile parole office and structure and equipment damage at the Al Price Juvenile Correction Facility, to the loss of headquarters, restrooms, and concession areas at the USS Texas Battleship Museum, Sea Rim Park, and Galveston Island State Park.

Estimated costs for repair of state government infrastructure include: Repairs to State Parks and Historic Site Equipment and Structures Repairs to Prison and Youth Facilities and Equipment

\$ 128.6 million 8.0 million



<sup>4</sup> In this case, "facilities" includes state prisons, jails and youth facilities, state owned or leased public buildings, parks, and historic sites.



#### **SECTION SIX:**

#### **ECONOMIC DEVELOPMENT**

#### NEED

Funds totaling \$545.0 million are needed for community revitalization, historic repair, and bridge loans and grants.

#### **JUSTIFICATION**

#### **COMMUNITY REVITALIZATION PROGRAM**

\$ 500.0 million

Provide funds to local governments to rebuild downtown and waterfront areas damaged or destroyed by Hurricane Ike. Because the economies in many of the most devastated areas are closely tied to tourism, it is difficult at this time to determine Ike's long-term impact. Galveston Island officials estimate that more than 80 percent of the business community suffered a devastating impact and more than 20 percent of the island's tax base was destroyed. On the other side of Galveston Bay, the Bolivar Peninsula lost virtually its entire economic base. Of the 82 businesses located on the Peninsula, only four suffered minor damage while 47 were severely damaged and 31 were a total loss. In addition, basic services still have not been restored in the peninsula area. By looking at New Orleans' economic losses following Hurricane Katrina, it is possible to anticipate the impact to these and other affected areas dependent on tourism. Based on a three-year report on Hurricane Katrina, 55 percent of the jobs lost were in industries related to tourism. In Southeast Texas, all 216 businesses in Bridge City were severely damaged or destroyed by the storm surge. Because the majority of the city was not required to have flood insurance, the greatest portion of the damage will not be covered by insurance. Without assistance from outside the normal financial communities, many businesses will not be able to recover due to the extent of repairs and the length of time they will be closed. Numerous businesses have also learned their insurance coverage does not include loss of revenue due to this type of event or for such an extended period of time.

#### **GRANTS FOR HISTORIC STRUCTURE REPAIR**

\$ 25.0 million

Businesses and residences located in Galveston's historic districts will face increased costs to meet the stringent guidelines for those districts. Many of these structures are tied directly to the City of Galveston's economic success. In Galveston, more than 5 million tourists each year are drawn to the area's destinations including the 1877 Tall Ship Elissa, the Texas Seaport Museum, venues like Bishop's Palace and Aston Villa, as well as the Strand Historic District. Rehabilitation of these important historic structures and historic homes throughout the city are essential to the economic restoration of the city.

#### FUNDS FOR BRIDGE LOANS AND/OR GRANTS

\$ 20.0 million

In many of the hurricane affected areas, businesses could make a faster recovery with the infusion of relatively small amounts of money. For those whose businesses do not require major repairs, a grant of up to \$10,000 to cover start-up costs and cash flow would provide the capital needed to reopen. For others, bridge loans and long-term loans will be needed. Businesses with adequate insurance coverage can access bridge loans until they receive insurance settlements. For others, insurance will not meet the bulk of their needs and these businesses may need assistance for a longer term in order to survive.

Funds totaling \$14.3 billion are needed to address the long-term economic impact for areas damaged during the 2008 hurricane season.

#### **JUSTIFICATION**

At this point in time, the long-term economic impact in the disaster affected regions is not known. However some preliminary estimates from Councils of Government and the Southeast Texas Business Partnership indicate the economic impact on businesses could be \$7.6 billion. The economic impact on the agricultural industry is estimated to be another \$6.7 billion. Economic impacts such as these will have to be addressed with tax incentives as outlined below.

This request is for legislation to provide a variety of tax incentives to both businesses and individuals comparable to those passed following Hurricane Katrina in 2005 (both Title I & II incentives). This allows for rebuilding efforts not funded by a direct appropriation of federal funds. We recognize that some of the components below are currently included in the Emergency Economic Stabilization Act of 2008. Those incentives will be taken into consideration as the final composition of the proposed Ike Gulf Opportunity Zone (the Zone) is developed. The incentives requested include, but are not limited to, the following:

50 PERCENT BONUS DEPRECIATION: Relates to certain property purchased following the storm that is used in a trade or business. In general, this allows for an additional deduction for depreciation of 50 percent the year the purchased property is placed in service. Most depreciable real property is eligible. Also would request that this pertain not only to rebuilding projects but new ones as well.

TAX EXEMPT BONDS: Allows the state to issue a special class of tax exempt, private-activity bonds outside the state volume cap. These bonds would be used to pay for acquisition, construction, and renovation of non-residential real property (including fixed improvements associated with that property), qualified low-income residential rental and single-family residential housing, and public utility property located within the Zone.

NET OPERATING LOSS CARRYBACK: Allows an extended carryback period for net operating losses by businesses with preexisting operations in the Zone.

EMPLOYER-PROVIDED HOUSING INCENTIVES: For a 6-month period, provides employers with a 30 percent tax credit for the cost of employer-provided housing (up to \$600 per month) for employees located in the Zone. In addition, up to \$600 per month of such cost would be excluded from the employee's income.

QUALIFIED REHABILITATION CREDIT: Raises the credit for qualified expenditures for an historic structure to 26 percent and other qualified structures to 13 percent through December 31, 2011.

EXPENSING RULES FOR DEMOLITION AND CLEAN-UP: Permits expensing up to 50 percent of such costs incurred through 2010, ordinarily these costs must be capitalized. Brownfield expensing is also extended and expanded to include sites contaminated by petroleum products.

NEW MARKET TAX CREDIT AUTHORIZATION INCREASE: Increases New Market Tax Credit authority from 2008 through 2010 by \$1.0 billion. This authority is for investment in Community Development Entities with recovery and redevelopment of the Zone as a significant mission.

ENHANCE SECTION 179 EXPENSING FOR SMALL BUSINESSES: Increases the investment a small business (those with less than \$400,000 of annual investments) may expense within the Zone.

REFORESTATION INCENTIVES FOR SMALL TIMBER OWNERS: Raises the reforestation costs deductible cap through 2011 in addition to the 5-year net operating loss carryback for owners of less than 500 acres of timber.

LOW-INCOME HOUSING TAX CREDITS: Authorizes additional low-income housing tax credits in 2008, 2009, and 2010 of \$16 per person based on the populations of certain impacted counties for new construction and rehabilitation expenditures. This request would also include waiving the first-time home buyer requirement.

For a more global perspective of the economic impact that could be expected in the affected region, BBVA's Economic Observatory<sup>5</sup> estimated that the economic impact of Ike in Texas could be \$19.1 billion which could subtract up to 1 percent from Texas' 2008 gross domestic product. The report also states that Ike could lead to a temporary loss of more than 125,000 jobs and a moderation in state income in the fourth quarter of 2008. The same article cites "Normalized Hurricane Damages in the United States: 1900-2005" that provides an estimated economic loss of a hurricane based on its category. Hurricane Ike, now classified a Category 4, could result in an economic loss of over \$32.0 million. The funds needed to cover much of this devastation will come from requests under the Ike Gulf Opportunity Zone request.



<sup>5</sup> BBVA is the holding company of Compass Bank and publishes Economic Observatory

<sup>6</sup> Roger A. Pielke, et al (2006)

# FORESTRY, AGRICULTURE, AND FISHERIES

#### NEED

Funds totaling \$1.1 billion are needed to offset forestry, agricultural, and fishery losses.

#### **JUSTIFICATION**

The 2008 hurricane season left Texas' agriculture and forestry industries in turmoil. The combination of torrential rains and hurricane-force winds left trees uprooted, crops destroyed, and livestock scattered. The economic impact on these industries is still being calculated as the damage has long-term effects. However, the damage to local businesses and land owners is devastating.

FORESTRY IMPACT<sup>7</sup> \$ 500.0 million

The Texas Forest Service reports that the impact from Hurricane Ike was extensive. Over 473,000 acres of timber across 30 counties were either damaged or affected by the storm (see Figure 1). This damage translates to approximately 612 million cubic feet for a stumpage value of \$400.0 million. A portion of the damaged timber will be salvaged. However, because of the large volume of timber damaged, the rapid decay of dead wood, and economic constraints, salvage operations are limited.

Additionally, \$100.0 million is needed for site preparation and reforestation, and ecosystem restoration. Without reforestation in these areas, many of these businesses and land owners will face financial hardships.

#### LAND AND LIVESTOCK IMPACT

\$ 165.0 million

The Texas Department of Agriculture estimates that much of the 1.5 million acres of grazing land in the hard-hit area is unsuitable for livestock because of salt contamination. Barns and barbed-wire fences are obliterated and finding temporary grazing lands with sufficient water and forage is a priority. Such an effort will mitigate additional costs associated with livestock deaths and carcass removal. This is also critical to public safety, as it will facilitate the removal of roaming cattle that are endangering the travelling public on roadways.

An estimated 15,000 head of livestock were killed and the impact on the reproduction cycle is catastrophic. The hurricanes also had a negative impact on the poultry industry. Additionally, funds are needed for feed replacement.

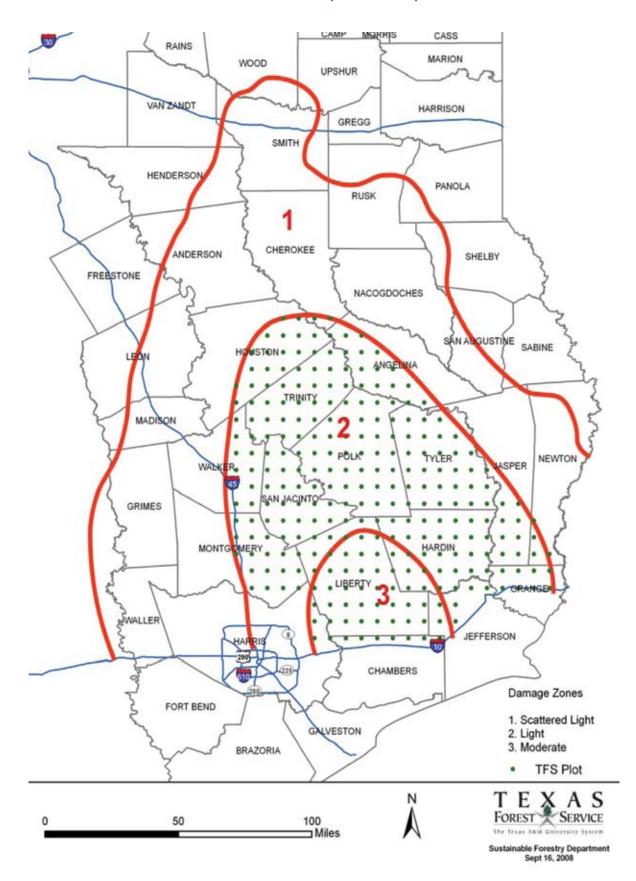
CROP DAMAGE \$ 139.6 million

These funds will be used for the replacement of the crops damaged by the hurricanes, including damage to sorghum, cotton, corn, pecans, hay, grapefruit, sugarcane, and rice. As a result of Hurricane Dolly, much of the drainage canal system that serves agriculture in the valley region of Texas still needs to be rebuilt. South Texas will undoubtedly experience economic strain due to a late fall vegetable production that is expected to yield 50 percent less than last year, and a major sugar mill that will not run at capacity this year.

<sup>7</sup> The long-term level of economic activity associated with forestry damage equates to a loss of \$6,700.0 million and will be addressed with the Zone request.



Figure 2: Hurricane Ike - Timber Damage Assessment Forest Inventory and Analysis



#### STRUCTURE AND EQUIPMENT DAMAGE

\$ 130.0 million

Funds are needed to replace structures and lost or damaged equipment throughout the hurricane impacted areas. For example, many local businesses and land owners lost silos, warehouses, barns, trailers, nurseries, greenhouses, and farm machinery. This estimate also includes the cost to replace or repair 2,732 miles of fence that were destroyed or damaged by the hurricanes.

PEST DAMAGE \$ 60.0 million

As a result of severe flooding, wet conditions have increased pest infestations. For example, boll weevil damage has become a problem as producers are not able to enter fields to treat and destroy hostable cotton. The hurricanes also spread other pests of concern, including Crazy Rasberry Ants, Chili Thrips, and Asian Cycad Scale.

DEBRIS REMOVAL \$ 50.0 million

Each of the agriculture and forestry components was impacted by catastrophic quantities of debris. Debris must be removed before restoration of agricultural services can begin.

FISHERY DAMAGE<sup>8</sup> \$ 8.0 million

According to the Texas Parks and Wildlife Department, Sabine Lake and Galveston Bay make up approximately 37 percent of the inshore waters of the Texas coast. This area is an important center for both recreational and commercial fisheries, accounting for approximately 55 percent of the ex-vessel value of commercial landings, and 36 percent of the total recreational fishing along the Texas coast.

A total of 293 businesses have been directly impacted in the commercial fisheries based on license and trip ticket reporting. In addition, three of the five most heavily used boat ramps in Galveston Bay are currently closed. The oyster, finfish, and shellfish industries have been negatively impacted by the pollution from



<sup>8</sup> These are preliminary estimates as data is still being reported and is likely to be underestimated.

Funds totaling \$1.4 billion are needed for structural damage, direct client services, emergency assistance, and other social services.

#### **JUSTIFICATION**

Social service agencies throughout Southeast Texas and the Texas Gulf Coast experienced significant damage and loss of equipment, supplies, and food. These agencies were called upon to assist in preparation for the hurricanes and to provide aid as the region recovers. Despite their losses, these agencies continue to receive requests from clients for food, clothing, rental, or other housing assistance, utility assistance, job placement and other services.

#### UNREIMBURSED STRUCTURAL DAMAGE TO SOCIAL SERVICE AGENCIES

\$ 839.4 million

Hurricane Ike struck hard at the social services infrastructure of Southeast Texas and the Texas Gulf Coast. Programs throughout the impacted area received property damage from storm surge, high winds, or both. Insurance will cover portions of the repair and replacement costs but non-profits and faith-based organizations have limited resources to serve their clients and fund the unreimbursed cost for damages. Damages include the repair and replacement of items such as floors, walls, roofs, vehicles, air conditioning systems, security systems, fencing, electrical systems, and the cost of removing debris. Damages to social service agencies was extensive and included but was not limited to the following public, non-profit, and private agencies: the Harris County MHMRA and the Gulf Coast MHMRA, AIDS Coalition of Coastal Texas, The Children's Center, area food banks, Catholic Charities – Houston, Catholic Charities – Galveston, United Way, Spindletop MHMR, First Baptist Sabine Outreach Center, Buckner Children and Family Services, Orange Community Action Association, the City of Port Arthur, and Goodwill. Besides structural damage to facilities, the social service agencies suffered significant loss of equipment and supplies, including medical supplies. In Harris County, 70 percent of childcare programs reported damage from the Hurricane Ike and regional food banks report losses in excess of \$20.0 million for replacement food costs.

# **INCREASED CLIENT SERVICES**

\$ 415.1 million

As with all natural disasters, increased distress in people's lives lead to greater demand for social services. In Southeast Texas and the Texas Gulf Coast, case management and direct client services assist individuals and families identifying their most pressing needs and developing a long-term plan for self-sufficiency. Additionally, these funds assist families in meeting a wide range of needs including debris removal, durable medical equipment, clothing, bedding, temporary housing repairs, medications, childcare, substance abuse intervention and treatment, counseling, food, transportation, utility assistance, and furniture.

#### **REIMBURSE STATE COSTS**

\$ 104.3 million

Leading up to and immediately following the 2008 hurricanes, state social service agencies provided assistance to Texans by deploying staff to the affected areas to help with emergency food stamps, needs assistance payments, Temporary Assistance for Needy Families (TANF) emergency assistance, and Medicaid. This item represents the state's portion of these costs for the 2008 hurricane season.





#### **SECTION TEN:**

#### **TRANSPORTATION**

#### NEED

Funds totaling \$536.5 million are needed for local, county, and state transportation repairs and mitigation.

#### **JUSTIFICATION**

LOCAL AND COUNTY GOVERNMENT TRANSPORTATION REPAIRS AND MITIGATION

\$ 482.8 million

Hurricane Ike clearly demonstrated that much of the coastal region's transportation network will not withstand the forces of Category 2 through 5 hurricanes. Of particular concern are those sections of the network that serve as critical evacuation and resettling routes. Local governments have identified projects necessary to ensuring these key sections will survive a hurricane at or above a Category 2. An estimated \$404.7 million for mitigation projects with \$319.0 million of that identified for construction of multiple overpasses in Brooks and Jim Wells Counties and a connector in Live Oak County. Another \$25.0 million is needed in Starr County to upgrade evacuation routes. This also includes elevating the IH-37 bridge that lies in both Nueces and San Patricio Counties.

Other costs from local and county governments include removal of debris and the repair of roads, bridges, and right-of-ways.

#### STATE TRANSPORTATION REPAIRS

\$ 53.7 million

Estimated Texas Department of Transportation (TxDOT) costs include \$36.5 million to remove debris from right-of-ways not removed by the Corps of Engineers. The type of debris left from the storms creates specific challenges, including the removal of boats, vehicles, and other large equipment from the right-of-way, some with hazardous materials.

Projected costs to repair and replace bridges and roadways, including the bridge over Rollover Pass along Highway 87 (the only road to the Bolivar Peninsula) which was heavily damaged and currently has only one lane open to passenger vehicles, is \$1.2 million.

An estimated \$8.1 million is needed to repair the Galveston Island/Port Bolivar ferry system. Access to communities on the Bolivar Peninsula via the Bolivar Ferry is currently not available to the general public due to unsafe conditions at the landings in Port Bolivar.

TxDOT crews were tasked with securing all roadways, including assessing damage to pavement, guardrails, signal lights, and bridge supports. Approximately \$6.8 million is needed to repair and replace traffic signs, signals, and beacons in affected areas.

Funds totaling \$570.0 million are needed to address workforce housing, workforce development training, and disaster-related unemployment costs.

#### **JUSTIFICATION**

**WORKFORCE HOUSING PROGRAM** 

\$ 500.0 million

The Workforce Housing Program is designed to provide incentives for the development of affordable workforce housing (owner-occupied and rental) which is defined as housing that meets the needs of households making at or below 120 percent of the Average Median Family Income. Prior to the 2008 hurricane season, workforce housing was sorely lacking in Southeast Texas and the Texas Gulf Coast. The City of Galveston reports that prior to lke, more than 20,000 employees commuted to the island every day due to lack of affordable housing in the city. Because of the destructive forces of Hurricane lke, many of those who lived on the island are now forced to find homes elsewhere. Southeast Texas is facing a similar lack of affordable housing that is exacerbated by the influx of 9,000 industrial construction workers for four capital expansion projects. The Workforce Housing Component of the Community Development Block Grant recovery assistance will seek non-profits, developers, contractors, and others willing to build affordable, mixed-income projects designed to meet the current needs of those affected by lke and of the increased workforce. The long-term affect is that Southeast Texas and the Texas Gulf Coast will ultimately have more affordable housing units than prior to the storm available to low- to moderate-income families. It is anticipated that these funds could provide as many as 10,000 additional units of affordable housing. Applicants will be required to leverage funds for their projects in order to have the most significant impact on low- to moderate-income housing.

Three years after Hurricane Katrina, lack of affordable housing in the New Orleans area is the single biggest contributing factor to the inability to fill vacant jobs in the region. Fair market rent in the New Orleans metro area has risen 46 percent since 2005. The housing component of this request will ensure that does not occur along the Texas Gulf Coast.



# **WORKFORCE DEVELOPMENT TRAINING PROGRAM**

\$ 40.0 million

Prior to Hurricane Ike, Southeast Texas and the Texas Gulf Coast were undergoing a huge economic boom with more than \$15.0 billion in petrochemical industry expansion, almost \$1.0 billion in new school construction, and \$2.3 billion in Galveston Island development activities. Thousands of new jobs were being created. Many of these projects not only suffered physical losses as a result of Hurricane Ike, but are also now finding it difficult to resume activities because they lack a sufficient workforce. In addition, the task of recovery in the impacted areas has increased the need for skilled laborers in several sectors including: construction, health care, transportation, oil and gas, and tourism/hospitality. Based on data from BBVA's Economic Research Department<sup>9</sup>, more than 125,000 jobs will be temporarily lost as a result of the storms. The Workforce Development Training program will address the loss of jobs and the re-employment of the workforce as a priority in the recovery of the impacted areas. It will concentrate on three factors critical to recovery: the return of displaced workers, the retention of the existing workforce and the increase in skills development for new jobs in sectors related to immediate and long-term recovery and rebuilding efforts. This component is intended to meet the needs of both large and small businesses by developing sector-based workforce training programs and will result in quality jobs for low- to moderate-income individuals.

#### **DISASTER-RELATED UNEMPLOYMENT COSTS**

\$ 30.0 million

Based on information provided by the Texas Workforce Commission, \$30.0 million is needed to reimburse the State of Texas Unemployment Insurance Trust Fund as a result of the increase in Hurricane Ike unemployment applications. More than 106,000 new unemployment claims had been filed as of October 28, with an average of 225 new disaster claims submitted daily.



#### **SECTION TWELVE:**

#### **EDUCATIONAL SERVICES**

#### NEED

Funds totaling \$712.7 million are needed for the unreimbursed repair costs to public and private colleges and universities and public schools damaged during the 2008 hurricane season.

#### **JUSTIFICATION**

Hurricane Dolly caused an estimated \$3.9 million in damages to Texas State Technical College in Harlingen, including wind-blown water damage to at least 15 major buildings and some temporary buildings.

Hurricane Ike caused widespread damage to many two- and four-year colleges and universities. The institution that received the most damage was The University of Texas Medical Branch (UTMB), located in Galveston, with damages totaling \$427.8 million. This includes major damage to the infrastructure; clinical, research, and IT equipment; and \$225.0 million in building damages. UTMB is the third-largest hospital in the Houston/Galveston region. The UTMB health system has 753,000 outpatient visits and 41,000 inpatient admissions annually. UTMB is a major employer with 12,000 employees throughout the state. During the hurricane recovery period, many services offered at UTMB - Galveston have been temporarily suspended or relocated. The cumulative unreimbursed damage to colleges and universities by Hurricane Ike is \$636.1 million.

Like the higher education facilities, Hurricane Ike caused extensive damage, from roof damage to total destruction, to many school districts. To date, 14 schools remain closed, seven of which are closed indefinitely. As a result, the students in these schools were relocated.

The Texas Education Agency (TEA) sent \$3.0 million in emergency funds to two school district regions. This money was spent on immediate clean-up and recovery efforts and an additional \$1.0 million was spent on public school emergency shelter costs.

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HARRINARIURGER DAMAGES TO RUBUS AND REMATE COLLEGES AND HARVERSITIES

| Unreimbursed Damages to Public and Private Colleges and Universities | Ş  | 640.1 million |
|--|----|---------------|
| The following colleges and universities were most affected:          |    |               |
| University of Texas Medical Branch                                   | \$ | 427.8 million |
| San Jacinto College  |    | 48.3 million  |
| University of Houston  |    | 40.0 million  |
| Houston Baptist University   |    | 33.0 million  |
| Texas A&M University – Galveston                                     |    | 28.6 million  |
| Texas Southern University  |    | 15.5 million  |
| University of Texas - MD Anderson                                    |    | 7.5 million   |
| Houston Community College  |    | 7.1 million   |
| Lamar State College – Orange   |    | 7.0 million   |
| Lamar University – Beaumont  |    | 5.5 million   |
| Texas State Technical College - Harlingen                            |    | 3.9 million   |
| Texas Engineering Extension Service                                  |    | 3.6 million   |
| University of Texas Health Science Center – Houston                  |    | 3.4 million   |
| Texas A&M University - Texas Forest Service                          |    | 3.3 million   |
| Rice University  |    | 3.0 million   |

| Unreimbursed Damages to Public Schools                          | \$<br>72.6 million |
|---|--------------------|
| The following school districts suffered the most severe damage: |                    |
| Galveston ISD   | \$<br>12.9 million |
| Houston ISD   | 7.0 million        |
| Clear Creek ISD   | 5.0 million        |
| Pasadena ISD  | 4.0 million        |
| Beaumont ISD  | 3.0 million        |
| Bridge City ISD   | 3.0 million        |
| Sabine Pass ISD   | 2.6 million        |
| Barbers Hill ISD  | 2.4 million        |
| Texas City ISD  | 2.4 million        |
| Port Arthur ISD   | 2.2 million        |
| La Porte ISD  | 2.2 million        |



Funds totaling \$3.2 billion are needed for waterway and infrastructure repairs, mitigation projects, coastal restoration, and underwater debris removal projects.

#### **JUSTIFICATION**

Hurricane Ike's strong storm surge caused significant damage to navigable waterways, ports, and other coastal zones. The storm surge deposited silt and debris in bays, navigable rivers, and channels; impaired levees, docks, and navigation locks and gates; destroyed flood barriers; and damaged equipment and vehicles. Hurricane Dolly also affected south Texas ports and waterways, depositing silt and debris in channels and damaging structures. Needed repairs for port areas affected by the hurricanes include channel dredging; replacing and repairing levees, flood barriers, locks, and gates; removing debris and restoring the shoreline. Because efforts to prevent recurrence of these events may qualify for other funding, improvements to levee systems and relocation of low-lying transportation and equipment are also included in this initial request as mitigation.

WATERWAY AND INFRASTRUCTURE REPAIRS AND MITIGATION PROJECTS

\$2.140.4 million

| Repair estimates for the areas most severely damaged include:  | ٧٤       | .,140.4 111111011 |
|--|----------|-------------------|
| Infrastructure Repairs   |          |                   |
| Port of Galveston  | \$       | 500.0 million     |
| Port of Texas City   |          | 150.0 million     |
| Port of Houston  |          | 149.0 million     |
| Chambers County  |          | 85.5 million      |
| Matagorda County   |          | 25.5 million      |
| Starr County   |          | 20.0 million      |
| Sabine Neches Navigation District  |          | 12.9 million      |
| Port of Sabine Pass  |          | 4.0 million       |
|  |          |                   |
| MITIGATION PROJECTS  |          |                   |
| Bridge City  | \$       | 375.0 million     |
| Jefferson County Drainage District No. 7   |          | 300.0 million     |
| Coastal Bend   |          | 238.8 million     |
| Houston - Galveston Area Council   |          | 76.6 million      |
| Lower Rio Grande   |          | 60.6 million      |
| Jefferson County   |          | 60.0 million      |
| Lower Neches Valley Authority  |          | 55.5 million      |
| City of Beaumont   |          | 8.0 million       |
| CONSTANT DESCRIPTION AND HARDEST DESCRIPTION DESCRIPTION OF THE PROPERTY OF TH | <b>.</b> | 1 002 7:!!:       |
| COASTAL RESTORATION AND UNDERWATER DEBRIS REMOVAL PROJECTS   | \$       | 1,092.7 million   |
| Estimated unreimbursed state damage includes:  | <b>.</b> | F.C.O. O:III:     |
| Coastal Restoration  | \$       | 560.0 million     |
| Underwater Debris, Vessel, and Well Removal and Remediation  |          | 512.7 million     |
| Navigable Waterway Reopening   |          | 20.0 million      |



#### HEALTH CARE AND MENTAL HEALTH SERVICES

#### NEED

Funds totaling \$209.4 million are needed to provide uncompensated health care and mental health services, and to repair or replace unreimbursed damage to facilities and loss of equipment.

#### **UNCOMPENSATED HEALTH CARE**

\$ 127.0 million

As Hurricane Ike headed for Texas, the evacuation of vulnerable people from the potential strike zones was paramount. For example, UTMB - Galveston was evacuated with helicopter airlifts and ambulances. More than 295 patients were moved to safety, including 28 intensive care adult patients and 55 neo-natal intensive care infants. Hospitals across Texas mobilized medical staff to triage and care for those patients. FEMA will reimburse health care and supplies provided in shelters, but not for care received in hospitals and community health centers.

Before the hurricane, UTMB - Galveston was a major source of primary and specialty care services, especially for the uninsured and underinsured in Southeast Texas and the Texas Gulf Coast. With the extensive damage to facilities, these patients have turned to other health care providers. Some providers have reported up to a 25 percent increase in patients who would have otherwise been seen at UTMB. Providers throughout the region will provide pharmacy services and primary and specialty services such as orthopedics, cardiology, and obstetrics in place of those services at UTMB - Galveston.

These estimates may be conservative due to increased unemployment and the loss of insurance benefits or insufficient resources to pay both the overwhelming hurricane-related losses and medical costs. Hundreds of small-businesses remain closed and their employees remain without jobs. Additionally, many of uninsured and underinsured patients have chronic, life-threatening illnesses that have been exacerbated by the stress of the hurricane and their inability to return to their "normal" lives.

# UNREIMBURSED DAMAGE TO FACILITIES AND LOSS OF EQUIPMENT AND SUPPLIES

\$ 71.9 million

There was considerable uncompensated infrastructure damage to health care related facilities and the loss of equipment and supplies. Some examples of facilities which sustained substantial damage include the Medical Center of Southeast Texas, Harris County Mental Health and Mental Retardation Authority (MHMRA), Anahuac clinic, Memorial Hermann, El Centro De Corazon Clinics, CHRISTUS St. Elizabeth, and CHRISTUS St. Mary.

#### **UNCOMPENSATED MENTAL HEALTH SERVICES**

\$ 5.4 million

Following Hurricanes Katrina and Rita, the Substance Abuse Mental Health Services Administration developed a Hurricane Mental Health Awareness campaign because of the widely acknowledged psychological impact of devastating natural disasters. The Texas Health and Human Services Commission and local agencies anticipate an increase in crisis counseling and mental health services in the impacted counties based on Texas' experience in Hurricanes Katrina and Rita.

### PROVIDE HEALTH ACCESS NETWORK SERVICES

\$ 5.0 million

Health access networks worked well during the Hurricane Rita recovery and should be used for recovery from Hurricane Ike. This program matches patients requiring emergency and other services with community health workers. The community health workers address chronic medical problems that result in multiple emergency room visits and assist patients with preventative health strategies. As a result of the damage to UTMB, these workers might also match patients with specialty care providers.



### **SECTION FIFTEEN:**

#### **UTILITY INFRASTRUCTURE**

#### NEED

Funds totaling \$1.6 billion are needed for cost of repairs to electric and telecommunication utilities.

#### **JUSTIFICATION**

Hurricane Ike traveled through the service area of four investor-owned electric utility companies, causing the most outages in the history of Entergy Texas and CenterPoint Energy. Ike's path (see Figure 3) included five non-nuclear generation plant sites, with Entergy's Sabine plant sustaining damage from flooding and winds. The storm also caused extensive damage to the transmission and distribution system and thousands of poles and transformers were damaged or destroyed. The cost of restoration, which ultimately must be recovered from ratepayers, will add to the burdens of ratepayers already trying to rebuild homes and businesses.

The effects of the 2008 hurricane season were also felt throughout the telecommunications industry, downing poles, cables, and cell towers, causing widespread service outages across the affected area. Similar to electric utilities, telecommunications providers had to repair damage and trim trees affecting downed and damaged poles and wires, as well as move thousands of portable generators to provide power to network central offices and terminals.

ELECTRIC UTILITY CRITICAL INFRASTRUCTURE REPAIRS

Costs for the hardest hit electric utilities included:

CenterPoint Energy

Entergy

Texas New Mexico Power

Oncor Electric Delivery

\$ 1,435.0 million

\$ 750.0 million

35.0 million

25.0 million

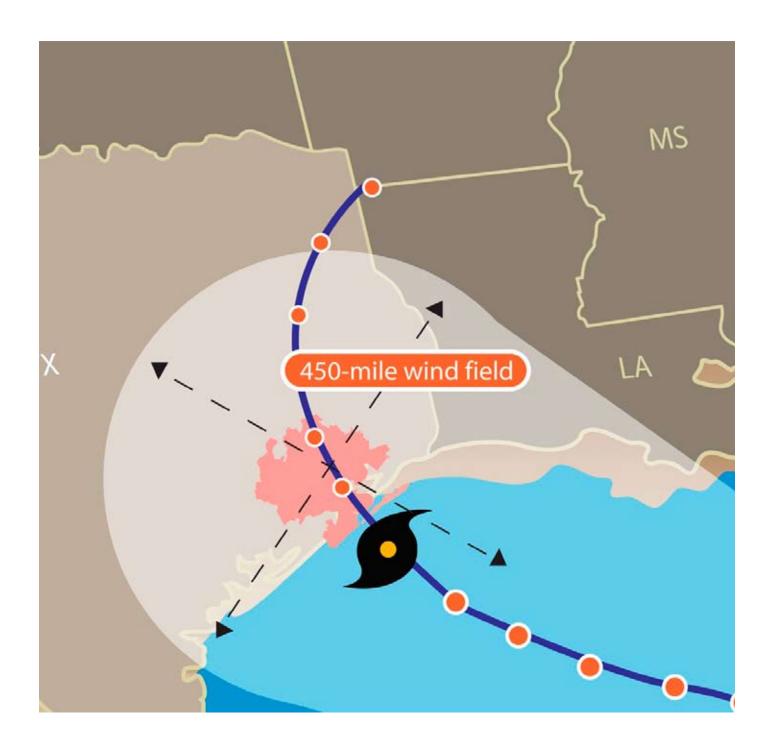
173.8 million<sup>10</sup>

TELECOMMUNICATION UTILITY INFRASTRUCTURE REPAIRS



10 Number as reported by the Texas Public Utility Commission

Figure 3: Hurricane Ike's Landfall Impact



### **SECTION SIXTEEN:**

#### **ACKNOWLEDGEMENTS**

The Texas Rebounds Helping Our Communities Recover from the 2008 Hurricane Season report reflects the collaborative work of numerous individuals from state and federal agencies. Their contributions and comments were essential. Thank you!

All of the Councils of Government in the impacted areas

CenterPoint Energy

Governor's Division of Emergency Management

Governor's Division of Homeland Security

Health and Human Services Commission, Strategic Decision Support

**Texas Association of Counties** 

Texas Department of Housing and Community Affairs

Texas Department of Insurance

**Texas Forest Service** 

Texas Municipal League

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## **APPENDICES:**

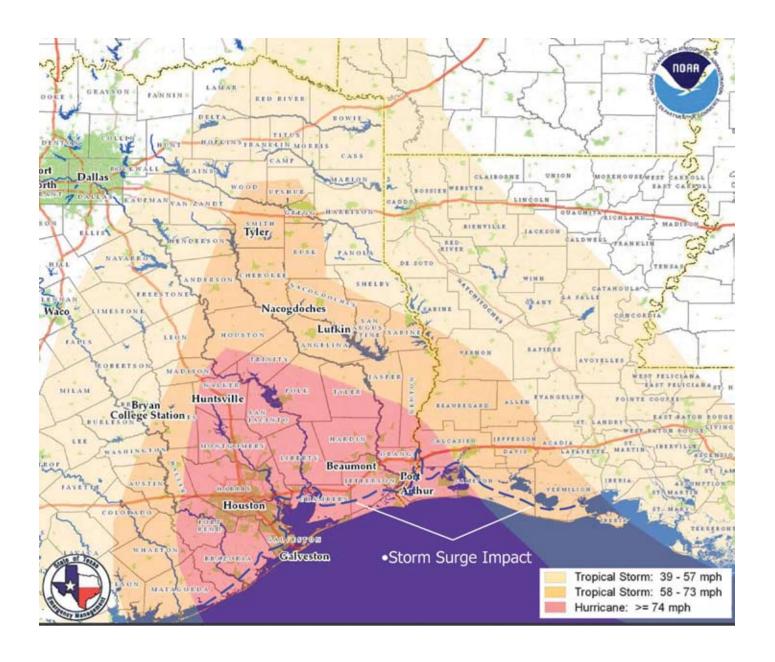
FIGURE 6:

| RELEVANT MAPS   |    |
|---|----|
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| FIGURE 4:   |    |
| HURRICANE IKE IMPACT REGION                                 | 38 |
|   |    |
|   |    |
| FIGURE 5:   |    |
| Hurricane Ike Individual Assistance Registrations by County | 39 |
|   |    |

# COUNTIES IMPACTED BY HURRICANE IKE, MEDIAN HOUSEHOLD INCOME, 2005 40

## FIGURE 7: COUNTIES IMPACTED BY HURRICANE IKE, PERCENT OF POPULATION IN POVERTY IN 2005 41

Figure 4: Hurricane Ike Impact Region



# Figure 5: FEMA-1791-DR-TX - Hurricane Ike Individual Assistance Registrations by County as of COB 10/20/2008

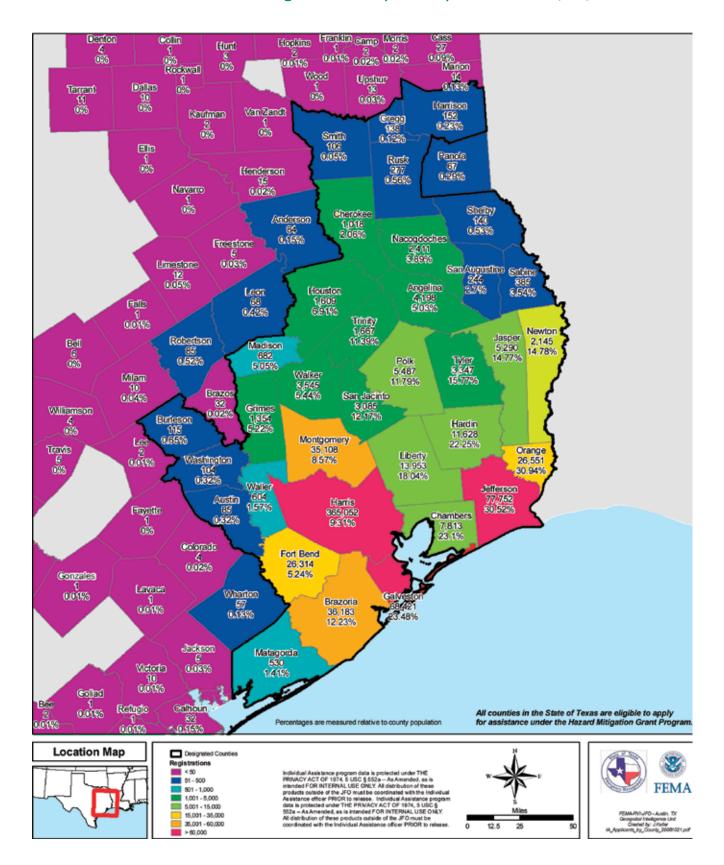


Figure 6: Counties Impacted by Hurricane Ike, Median Household Income, 2005

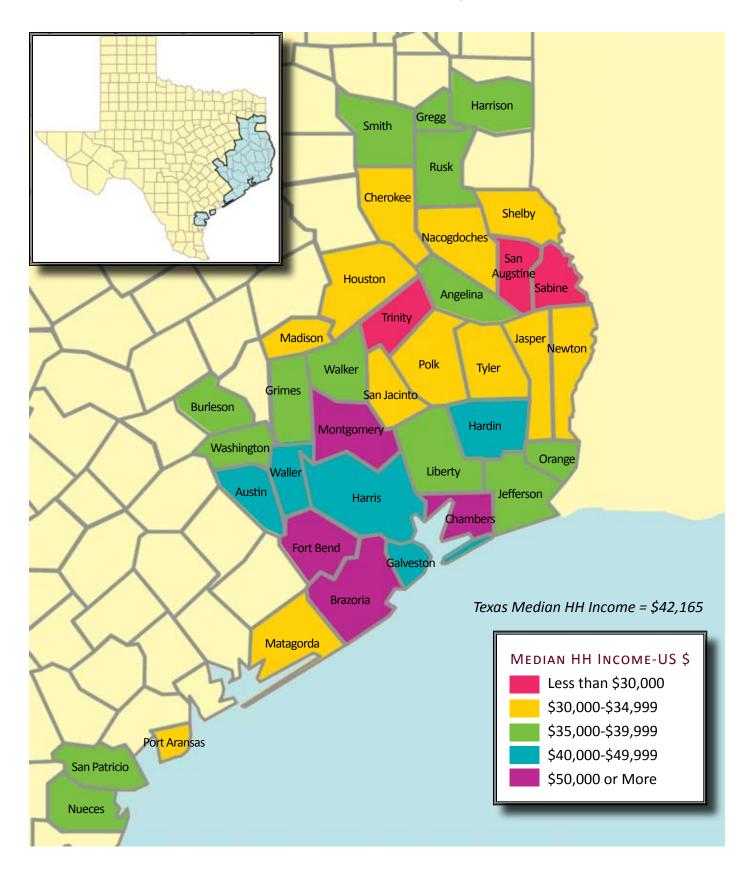


Figure 7: Counties Impacted by Hurricane Ike, Percent of Population in Poverty in 2005

